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FOLD-DOWN FLAT PANEL DISPLAY DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of application No. 09/222,828, filed Dec. 30, 1998, now pending.

This application makes reference to, incorporates the same herein, and claims all benefits accruing under 35 U.S.C. §119 from my utility model application entitled Device for Flat Panel Display Apparatus with Compounded Multifunction filed with the Korean Industrial Property Office on Dec. 31, 1997 and their duly assigned Serial No. 97-44812 by that Office.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a multifunctional flat panel display device, and more particularly, relates to a fold-down flat panel display device divided into a display unit and a controller and used as a stand type or a wall tapestry type and having a flexible folder connecting the display unit to the controller.

2. Description of the Related Art

Generally, there are two kinds of flat panel display devices, one is a stand type which a user operates on a desk or other surface and the other one is a wall tapestry type which is hung on a wall.

That is, conventional flat panel display devices as a stand type or wall tapestry type are supposed to be used to perform their own distinct functions. Accordingly, these flat panel display devices are not sufficient for contemporary tendencies and usages, for example, a meeting via a display screen or a personal use.

SUMMARY OF THE INVENTION

Accordingly, the present invention is designed to overcome the drawbacks described as above, and an object of the present invention is to provide a flat panel display device with a composite multifunction, which is separated into a display unit and a power unit and can be used as a stand type to rest on a surface or a wall tapestry type to be hung on a wall.

Additional objects and advantages of the invention will be set forth in part in the description which follows and, in part, will be obvious from the description, or may be learned by practice of the invention.

To achieve the above and other objects of the present invention, a flat panel display device is provided which includes a liquid crystal display panel for displaying an image, a power unit at a lower end of the liquid crystal display panel, and a display unit having a volume element, for adjusting volume corresponding to the displayed image; a PCB board, a power circuit, an interface port for connecting peripheral equipment and plural jacks are inside a controller unit to which a supporting board is attached to support the display unit at a side when the flat panel display device is to be used as a stand type, and a flexible folder unit, which is a connecting member, which connects the display unit and the controller unit.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other objects and advantages of the invention will become apparent and more readily appreciated from the

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following description of the preferred embodiments, taken in conjunction with the accompanying drawings of which:

FIG. 1 is a perspective view of a flat panel display device according to an embodiment of the present invention;

FIG. 2 is a rear view of the flat panel display device shown in FIG. 1;

FIG. 3 is a perspective view of the flat panel display device shown in FIG. 1 in a stand type state (a first, partially folded, state);

FIG. 4 is a side view showing the stand type state of the flat panel display device shown in FIG. 1; and

FIG. 5 is a side view showing a wall tapestry state (a second, fully folded, state) of the flat panel display device shown in FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Reference will now be made in detail to the present preferred embodiment of the present invention, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to like elements throughout. In the following description, well known functions and constructions which may obscure the present invention are not described in detail.

Referring to FIGS. 1 and 2, a flat panel display device according to an embodiment of the present invention includes a display unit 10 for displaying images, and a controller 20 equipped with an interface port 21 for connecting a PCB board 24, a control circuit for displaying the images on the display unit which have been received from peripheral equipment.

Also, a connecting member which connects the display unit 10 and the controller 20 is formed with a flexible folder 30, and the flexible folder 30 is formed with folds.

That is, the display unit 10 is equipped with a flat display screen 11 displaying images, a power switch 12 for turning on/off, the flat panel display device and a volume element 13 for controlling the volume relating to the images displayed on the flat display screen 11 at a vessel plate of a lower part of the flat display screen 11. The flat display screen 11 is a liquid crystal display screen.

The PCB board 24, which includes a circuit to control image signals corresponding to the images displayed on the flat display screen 11 and other signals, is formed inside of the controller 20, and an electric source circuit 25 which transfers external electric power to be used to power the flat panel display device is also formed inside the controller 20. A pair of grooves for wall tapestry 26 is formed in the top surface of the controller 20 to enable the flat panel display device to be hung from a wall as described later on.

The interface port 21 and a plural jack 22 are formed at an end side of the controller 20, for connecting to peripheral equipment. The supporting board 23 is rotatable to a first position which engages a cutaway portion at the back of the controller 20, and to a second position outside of the cutaway portion so as to rest on a surface when the flat panel display device is in the stand type state. As shown in FIG. 3, a plural engagement chin 23a, having a number of engagements, for supporting the display unit 10 is formed on the supporting board 23 protruded from the rear of controller 20 when a stand type configuration is used.

The flexible folder 30 enables a front surface of the display unit 10 to contact a front surface of the controller 20, and a back surface of the display unit 10 to contact a back surface of the controller 20.